NC/QC/YD/2020-21/P4-C1 Date: 25-09-2020

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**154 min**	Shall not be less than 30 min
2	Final setting time	**260 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**2.14%**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**2.09 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.64 N/Sq mm**	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-PCC1

Date: 25-09-2020

1. TESTING OF COARSE AND FINE AGGREGATES:

Sub: Testing of Coarse and Fine aggregates to be used for bed concrete.
{Project*- Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21.

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

1. COARSE AGGRGATES TABLE - SIEVE ANALYSIS:

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2007) % Passing	
	40 mm Sample	Single size	Graded
40mm	100.00	85-100	90 – 100
20mm	64.75	0 -20	30- 70
10mm	32.50	0 -5	10- 35
4.75mm	4.05	------	0- 5

2. FINE AGGREGATES TABLE - SIEVE ANALYSIS

IS Sieve Size, mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -III	
04.75	97.35	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	82.05	60-95	75-100	85-100	
01.18	70.45	30-70	55-90	75-100	
600 mic	47.80	15-34	35-59	60-79	
300 mic	24.55	5-20	8-30	12-40	
150 mic	6.25	0-10	0-10	0-10	

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-CE1 Date: 29-09-2020

1. TEST REPORT ON CEMENT:

Sub: Testing of 53 Grade Cement Sample (IS 12269-1987).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

PHYSICAL TESTS ON CEMENT

Grade * : 53,
Type * : O.P.C

TABLE 1.1:

SL No	Name of Test	Test Results	Requirements as per IS 8112-1989
1	Initial setting time	**163 min**	Shall not be less than 30 min
2	Final setting time	**270 min**	Shall not be more than 600 min
3	Fineness (by dry sieving on IS 90 micron sieve)	**1.89%**	Not to exceed 10.0%
4	Soundness test(by Le-Chatelier's method)	**1.94 mm**	Shall not be more than 10 mm
5	Compressive strength a) 3 days (average of three results)	**28.44 N/Sq mm**	Shall not be less than 27 N/Sqmm

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT * Bangalore *

NC/QC/YD/2020-21/P4-FA2 **Date: 29-09-2020**

1. TESTING OF FINE AGGREGATES :

Sub: Testing of Fine Aggregates.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TABLE - 1.1 : SIEVE ANALYSIS

IS Sieve Size,mm	Percentage Passing	Specification as Per IS: 383-1970(Reaffirmed 2002) Percentage Passing			Remarks
		Zone-I	Zone-II	Zone -II	
04.75	**97.15**	90-100	90-100	90-100	The Sample Conforms to Grading **Zone-II**
02.36	**81.25**	60-95	75-100	85-100	
01.18	**74.05**	30-70	55-90	75-100	
600. mic	**43.80**	15.34	35-59	60-79	
300.mic	**22.50**	5-20	8-30	12-40	
150.mic	**7.35**	0-10	0-10	0-10	

TABLE 1.2 :

Sl No	Test Conducted	Sample	Results	**Requirements** as Per IS. Specification IS :383-1970 (Reaffirmed 2002)
1	Bulking of Sand	001	**17.63%**	-----
2	Silt Content	----	**0.59%**	Not more than 8%
3	Specific Gravity	----	**2.61**	-------

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT * Bangalore

NC/QC/YD/2020-21/P4-CA2 Date: 29-09-2020

1. TESTING OF COARSE AGGREGATES (20 mm):

Sub: Testing of Construction Materials.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

Table - 1.1 : SIEVE ANALYSIS :

IS Sieve Size, mm	Percentage passing	Requirements as per IS 383-1970 (Reaffirmed on 2002) % Passing	
	20 mm Sample	Single size	Graded
40 mm	100.00	100.00	100.00
20 mm	96.25	85-100	90 - 100
10 mm	48.10	0 - 20	25 - 55
4.75 mm	3.95	0 - 5	0 - 10

TABLE 1.2 :

SL No	Test conducted	Results	Requirements as per IS 383-1970 & Tests Conforms to IS 2386(Part I to IV) – 1963 (Reaffirmed on 2002)
1.	Flakiness Index	26.54 %	Not to exceed 25 %
2.	Crushing value	28.79 %	Not to exceed 45 % for concrete other than for wearing surfaces and 30% for concrete for wearing surfaces

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-S1 Date: 29-09-2020

1. TEST REPORT ON REINFORCEMENT STEEL:

Sub: Testing of Reinforcement Steel of diameter 10and 12 mm **TMT Steel.**
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TABLE – 1

Sl. No	Details	For 8 mm		For 10 mm	
		Test Results	Min Req. as per IS 1786-2008	**Test Results**	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**8.0 mm**	8.0 mm	**10.0 mm**	10.0 mm
02	Observed Wt/m Length **Kg/m**	**0.392**	0.363	**0.621**	0.567
03	Proof stress/Yield stress, fy , **N/mm^2**	**525.0**	500.0	**556.0**	500.0
04	Bend/ Re bend Test	**Ok**	---	**Ok**	---
05	Percentage of Elongation, %	**22.45**	12.00	**19.80**	12.00
06	Ultimate Tensile Strength **N/mm^2**	**622.0**	545.0	**646.0**	545.0

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

Date: 29-09-2020

TABLE – 2

SL No	Details	For 12 mm		For 16 mm	
		Test Results	Min Req as per IS 1786-2008	**Test Results**	Min Req. as per IS 1786-2008
01	Observed diameter of bar	**12.0 mm**	12.0 mm	**16.0 mm**	16.0 mm
02	Observed Wt/m Length **Kg/m**	**0.893**	0.834	**1.582**	1.483
03	Proof stress/Yield stress, fy , **N/mm²**	**552.0**	500.0	**547.0**	500.0
04	Bend/ Re bend Test	**Ok**	---	**Ok**	---
05	Percentage of Elongation, %	**20.50**	12.00	**20.70**	12.00
06	Ultimate Tensile Strength **N/mm²**	**641.0**	545.0	**635.0**	545.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-CB1 **Date: 12-10-2020**

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [Shivadi Srinivasa Apartment]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	05-10-20	12-10-20	07	22500	365	16.22	**16.30**
	002	"	"	"	"	360	16.00	
	003	"	"	"	"	375	16.67	

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-CB2 Date: 13-10-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [Shivadi Srinivas Apartment]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	06-10-20	13-10-20	07	22500	365	16.22	16.15
	002	"	"	"	"	370	16.44	
	003	"	"	"	"	355	15.78	

The result of the materials tested meets the standards and hence can be used for the work.

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Page No. 1/1,

NC/QC/YD/2020-21/P4-CB3 Date: 20-10-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [*culvert*]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	13-10-20	20-10-20	07	22500	375	16.67	**16.74**
	002	"	"	"	"	385	17.11	
	003	"	"	"	"	370	16.44	

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-CB4

Date: 21-10-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 07days Compressive Strength).
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} ["culvert"]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	14-10-20	21-10-20	07	22500	370	16.44	16.67
	002	"	"	"	"	380	16.89	
	003	"	"	"	"	375	16.67	

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-CB1A

Date: 03-11-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).] [Sairadi Niviyan Apartment]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	05-10-20	02-11-20	28	22500	500	22.22	22.44
	002	"	"	"	"	510	22.67	
	003	"	"	"	"	505	22.44	

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-CB2A

Date: 03-11-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} ["culvert"]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	06-10-20	03-11-20	28	22500	510	22.67	**23.04**
	002	"	"	"	"	525	23.33	
	003	"	"	"	"	520	23.11	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

NEWZEN CONSULTANT * Bangalore

NC/QC/YD/2020-21/P4-CB3A

Date: 10-11-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} ['culvert]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	13-10-20	10-11-20	28	22500	495	22.00	**22.22**
	002	"	"	"	"	500	22.22	
	003	"	"	"	"	505	22.44	

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-CB4A

Date: 11-11-2020

1. TEST REPORT ON CEMENT CONCRETE CUBES:

Sub: Testing of Concrete Cubes (for 28days Compressive Strength).

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" culvert "]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

RESULTS OF COMPRESSIVE STRENGTH ON CEMENT CONCRETE

CUBE SPECIMENS

Dimensions of Specimen : 150 X 150 X 150mm

Grade of Concrete* : M_{20}

TABLE 1.1:

Sl No	Location/ Identification*	Date of Casting*	Date of Testing	Age in Days	C/S Area in mm^2	Maximum Load in K.N	Compressive Strength (N/mm^2)	Avg. Value
1	001	14-10-20	11-11-20	28	22500	505	22.44	22.59
	002	"	"	"	"	520	23.11	
	003	"	"	"	"	500	22.22	

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1,

NEWZEN CONSULTANT * Bangalore *

NC/QC/YD/2020-21/P4-GSB1 Date: 04-11-2020

TEST REPORT ON GRANULAR SUBBASE MIX
(GRADATION TEST)

Sub: To conduct tests on GSB (Grade-V) mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}[13th B, 12th B, 9th B main & 18th B, 17th B, 11th B cross]
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. **Gradation Test:**
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
75.00	**100.00**	100
53.00	**96.45**	80-100
26.50	**81.25**	55-90
9.50	**54.15**	35-65
4.75	**42.05**	25-50
2.36	**18.25**	10-20
0.85	**7.10**	2-10
0.425	**3.70**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪವಿಭಾಗ ಉಪಗ್ರಹ ಪಟ್ಟಣ
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-೫೬೦

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Date: 04-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Water absorption, %	**0.42 %**	Not more than 2.0 %
2.	Liquid Limit, %	**18.36**	Not more than 25.0 %
3.	Plasticity Index, %	**NP**	Not more than 6.0 %
4.	Moisture Content, %	**6.54**	----------
5.	Aggregate Impact Value, %	**28.76**	Not more than 40.00 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187

NC/QC/YD/2020-21/P4-GSB2

Date: 06-11-2020

TEST REPORT ON GRANULAR SUBBASE MIX
(GRADATION TEST)

Sub: To conduct tests on GSB (Grade-V) mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [6th A, 7th A cross & 3rd A, 4th A Main]
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. **Gradation Test:**
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
75.00	**100.00**	100
53.00	**94.25**	80-100
26.50	**80.50**	55-90
9.50	**52.70**	35-65
4.75	**46.15**	25-50
2.36	**16.90**	10-20
0.85	**8.10**	2-10
0.425	**4.05**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ
ಪ.ಪಂ.ಕ, ಬೆಂಗಳೂರು-106

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Date: 06-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS 383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Water absorption, %	**0.42 %**	Not more than 2.0 %
2.	Liquid Limit, %	**18.54**	Not more than 25.0 %
3.	Plasticity Index, %	**NP**	Not more than 6.0 %
4.	Moisture Content, %	**6.78**	----------
5.	Aggregate Impact Value, %	**28.34**	Not more than 40.00 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-GSB3 Date: 09-11-2020

TEST REPORT ON GRANULAR SUBBASE MIX
(GRADATION TEST)

Sub: To conduct tests on GSB (Grade-V) mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}[" Brigth law college, Hoysala ground, Shivaji srinivas aparment 1st main, 1st, 2nd cross"]
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. **Gradation Test:**
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
75.00	**100.00**	100
53.00	**93.65**	80-100
26.50	**82.35**	55-90
9.50	**51.70**	35-65
4.75	**43.85**	25-50
2.36	**15.40**	10-20
0.85	**8.25**	2-10
0.425	**3.95**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪವಿಭಾಗ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ, ಬೆಂಗಳೂರು-106

Page No. 1/2,

NEWZEN CONSULTANT * Bangalore *

Date: 09-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS 383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Water absorption, %	**0.43 %**	Not more than 2.0 %
2.	Liquid Limit, %	**18.64**	Not more than 25.0 %
3.	Plasticity Index, %	**NP**	Not more than 6.0 %
4.	Moisture Content, %	**6.18**	----------
5.	Aggregate Impact Value, %	**27.93**	Not more than 40.00 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-W1

Date: 12-11-2020

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04). [13th B, 18th B, 9th B cross & 17th B, 12th B, 11th, 12th B cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**96.35**	95-100
26.50	---	-
22.40	**72.10**	60-80
11.20	**54.30**	40-60
4.75	**32.90**	25-40
2.36	**26.50**	15-30
0.600	**18.05**	8-22
0.075	**3.90**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Date: 12-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)- 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M o R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.86%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.54%**	Not more than 35.0 %
3.	Water absorption, %	**0.41 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-W2

Date: 17-11-2020

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04). [i.e 13th B, 12th B, 9th B main & 18th B, 17th B, 11th B cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**95.40**	95-100
26.50	---	-
22.40	**73.60**	60-80
11.20	**51.45**	40-60
4.75	**34.90**	25-40
2.36	**22.50**	15-30
0.600	**19.35**	8-22
0.075	**4.10**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬ.ಬ.ಮ.ಪ, ಬೆಂಗಳೂರು-೬೫

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Date: 17-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS 383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.36%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.59%**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-W3 Date: 20-11-2020

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" 13th B, 12th B, 9th B Main & 17th B, 18th B, 11th B cross]

Ref. Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**98.45**	95-100
26.50	---	-
22.40	**74.30**	60-80
11.20	**51.80**	40-60
4.75	**36.55**	25-40
2.36	**23.15**	15-30
0.600	**17.25**	8-22
0.075	**3.75**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

ಸಹಾಯಕ ಕಾರ್ಯನಿರ್ವಾಹಕ ಅಭಿಯಂತರ
ಯಲಹಂಕ ಉಪನಗರ ಉಪವಿಭಾಗ,
ಬಿ.ಬಿ.ಎಂ.ಪಿ. ಬೆಂಗಳೂರು-106

NEWZEN CONSULTANT * Bangalore *

Date: 20-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.63%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.76 %**	Not more than 35.0 %
3.	Water absorption, %	**0.43%**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-W4

Date: 23-11-2020

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [9th A, 7th A cross & 3rd A, 4th A main]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	100.00	100
45.00	93.55	95-100
26.50	---	-
22.40	71.80	60-80
11.20	55.45	40-60
4.75	33.90	25-40
2.36	26.65	15-30
0.600	17.15	8-22
0.075	3.90	0-5

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE

Date: 23-11-2020

TABLE 1.2

Sl. No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**26.92%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.16%**	Not more than 35.0 %
3.	Water absorption, %	**0.42 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-W5 Date: 25-11-2020

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [Brigth law college, HOY Site ground, Shivadi Srinivasa Apartment, cross & main]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	100.00	100
45.00	96.25	95-100
26.50	---	-
22.40	70.10	60-80
11.20	53.60	40-60
4.75	35.85	25-40
2.36	26.50	15-30
0.600	18.35	8-22
0.075	4.15	0-5

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA,
JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Date: 25-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS 383-1970 & M.o R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.46%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.14%**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-W6 Date: 28-11-2020

TEST REPORT ON WET MIX MACADAM MIX
(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} ["Bright Law college, Hoysala ground, Shivaji Srinivasa Apartment]
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. Gradation Test:
TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**97.20**	95-100
26.50	---	-
22.40	**73.45**	60-80
11.20	**51.10**	40-60
4.75	**34.90**	25-40
2.36	**22.55**	15-30
0.600	**16.15**	8-22
0.075	**3.65**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Date: 28-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS:383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**27.81%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**28.34%**	Not more than 35.0 %
3.	Water absorption, %	**0.43 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-W7 Date: 30-11-2020

TEST REPORT ON WET MIX MACADAM MIX

(GRADATION TEST)

Sub: To conduct Gradation test on Wet Mix Macadam (WMM) Mix.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} ["Brigth Uni college. Hoysala ground, Shivaji Srinivasa apartment]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

1. Gradation Test:

TABLE 1.1

Sieve Size mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Specified Limits as per MoRTH Specifications, V Revision-2013
53.00	**100.00**	100
45.00	**93.40**	95-100
26.50	---	-
22.40	**71.20**	60-80
11.20	**56.70**	40-60
4.75	**32.85**	25-40
2.36	**26.55**	15-30
0.600	**18.90**	8-22
0.075	**3.45**	0-5

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

Date: 30-11-2020

TABLE 1.2

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)- 1963 (Reaffirmed on 2002) & Requirements as per IS 383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**26.59%**	Not more than 30.00 %
2.	Combined Flakiness and Elongation index, %	**27.86%**	Not more than 35.0 %
3.	Water absorption, %	**0.42 %**	Not more than 2.0 %
4.	Plasticity Index, %	**NP**	Not more than 6.0 %

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE, #13,10TH MAIN ROAD 2ND CROSS JNANAJYOTHI NAGARA, JNANABHARATHI, BANGALORE-560056. CELL NO: +91 8792620231, 080 23240187
EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-BD1 **Date: 01-12-2020**

1. TEST REPORT ON BITUMEN SAMPLE:

Sub: Testing of Bitumen sample VG-30 Grade.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

Technical Reference: Ministry of Road Transport and Highways, V Revision, 2013 and IS 73: 1992.

TABLE 1.1 ;

SL No	Details	Test Results	Requirements as per I.S 73 -1992 Specifications
1.	Penetration at 25^0 C	**52.40^0 C**	Min. 45
2.	Ductility Value at 25^0 C	**108.90 cm**	40
3.	Flash point	**245^0 C**	Minimum 220^0 C
4.	Softening point	**51.20^0 C**	Min. 47

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT * Bangalore *

NC/QC/YD/2020-21/P4-CD1 **Date: 01-12-2020**

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Dense Graded Bituminous Macadam.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TABLE 1.1 ;

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)- 1963 (Reaffirmed on 2002) & Requirements as per IS 383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**23.06%**	Not more than 27.00 % for DBM
2.	Combined Flakiness and Elongation index, %	**26.63%**	Not more than 35.0 %
3.	Water absorption, %	**0.43%**	Not more than 2.0 %
4.	Specific gravity	**2.62**	-------
5.	Soundness	**6.84 %**	Max. 12 % in Sodium Sulphate

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT BANGALORE * Bangalore *

NC/QC/YD/2020-21/P4-DBM1 Date: 04-12-2020

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" 12th B, 12th B, 9th B Main & 18th B, 17th B, 11th B Cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.52 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**97.25**	90-100
19.0	**83.60**	71-95
13.20	**71.35**	56-80
4.75	**48.70**	38-54
2.36	**36.05**	28-42
0.300	**18.90**	7-21
0.075	**6.40**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-DS1 Date: 04-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" 13th B, 12th B, 9th B main & 18th B, 17th B, 11th B cross]

Ref.: Material testing/PMC/20-21.

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1238**	900
2	Marshall Flow at 60°C, mm.	**3.26**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT * Bangalore *

NC/QC/YD/2020-21/P4-DBM2 Date: 04-12-2020

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [13th B, 12th B, 9th B Main & 18th B, 7th B, 11th B cross]
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.54 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**95.45**	90-100
19.0	**82.25**	71-95
13.20	**71.55**	56-80
4.75	**49.15**	38-54
2.36	**34.80**	28-42
0.300	**17.25**	7-21
0.075	**5.90**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-DS2 Date: 04-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :

(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.

{Project* Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [13th B, 12th B, 9th B main, 18th B, 8th B, 11th B cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1256**	900
2	Marshall Flow at 60°C, mm.	**3.48**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-DBM3 Date: 05-12-2020

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [13th B, 18th B, 9th main 17th B, 18th B, 11th B cross]

Ref. Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**
1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.53 %**

2. **Gradation Test**
TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**94.15**	90-100
19.0	**82.05**	71-95
13.20	**76.35**	56-80
4.75	**44.65**	38-54
2.36	**35.05**	28-42
0.300	**19.40**	7-21
0.075	**6.15**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-DBM4 Date: 05-12-2020

LTEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" 13th B, 12th B, 9th B main 17th B, 18th B, 11th B cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.51 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**98.05**	90-100
19.0	**84.30**	71-95
13.20	**71.65**	56-80
4.75	**47.25**	38-54
2.36	**33.85**	28-42
0.300	**18.15**	7-21
0.075	**7.45**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-DS4 Date: 05-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [13th B, 12th B, 9th Annexe, 14th B, 18th B, 11th B cross"]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1248**	900
2	Marshall Flow at 60°C, mm.	**3.34**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT Bangalore

NC/QC/YD/2020-21/P4-DBM5 Date: 05-12-2020

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [13th B, 12th B, 9th B main 17th B, 18th B, 11th B Cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.54 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	100	100
26.5	95.25	90-100
19.0	83.05	71-95
13.20	72.65	56-80
4.75	45.90	38-54
2.36	38.15	28-42
0.300	17.85	7-21
0.075	6.40	2-8

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

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NC/QC/YD/2020-21/P4-DS5

Date: 05-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" 13th B, 12th B, 9th B main 17th B, 18th B, 11th B Cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1238**	900
2	Marshall Flow at 60°C, mm.	**3.24**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NEWZEN CONSULTANT * Bangalore

NC/QC/YD/2020-21/P4-DBM6

Date: 07-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [9th A, 7th A cross & 3rd, 4th A main]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test – **4.53 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**96.45**	90-100
19.0	**85.20**	71-95
13.20	**73.60**	56-80
4.75	**48.15**	38-54
2.36	**36.80**	28-42
0.300	**17.25**	7-21
0.075	**6.45**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-DS6

Date: 07-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [9th A, 7th A Cross & 3rd A, 4th A main]
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1258**	900
2	Marshall Flow at 60°C, mm.	**3.44**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-DBM7

Date: 08-12-2020

LTEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [Bright law college, Vidyasala ground, Shivadi srinivas apartment]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **4.52 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	100	100
26.5	96.45	90-100
19.0	81.10	71-95
13.20	74.35	56-80
4.75	46.90	38-54
2.36	34.05	28-42
0.300	19.75	7-21
0.075	6.25	2-8

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-DS7 Date: 08-12-2020

LTEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [Brightlaw college, Hoysala Ground, Shirdi Nivasa Apartment]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1258**	900
2	Marshall Flow at 60°C, mm.	**3.42**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

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NC/QC/YD/2020-21/P4-DBM8

Date: 08-12-2020

LTEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for DBM mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).] [Bright law college Hoysala ground, Shivaji nivimas apartm]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Dense Graded Bituminous Macadam.**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test – **4.54 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-10 of MORTH Specfications-2013 DBM (Grading - 2)
37.5	**100**	100
26.5	**94.25**	90-100
19.0	**80.35**	71-95
13.20	**74.65**	56-80
4.75	**50.25**	38-54
2.36	**37.95**	28-42
0.300	**16.80**	7-21
0.075	**7.10**	2-8

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

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NC/QC/YD/2020-21/P4-DS8 Date: 08-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for DBM mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of DBM (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Dense Bituminous Macadam, Grade-2 as per M.o.R.T&H (IV Revision)-2001 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1246**	900
2	Marshall Flow at 60°C, mm.	**3.34**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-BBI

Date: 07-12-2020

1. TEST REPORT ON BITUMEN SAMPLE:

Sub: Testing of Bitumen sample VG-30 Grade.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04) }
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).
Technical Reference: Ministry of Road Transport and Highways, V Revision, 2013 and IS 73: 1992.

TABLE 1.1 ;

SL No	Details	Test Results	Requirements as per I.S 73 –1992 Specifications
1.	Penetration at 25° C	**51.70° C**	Min. 45
2.	Ductility Value at 25° C	**109.0 cm**	40
3.	Flash point	**234° C**	Minimum 220° C
4.	Softening point	**50.80° C**	Min. 47

The result of the materials tested meets the standards and hence can be used for the work.

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EMAIL:newzen576@gmail.com

NC/QC/YD/2020-21/P4-CB1

Date: 07-12-2020

1. TEST REPORT ON COARSE AGGREGATE:

Sub: Testing of Coarse Aggregate used in Bituminous Concrete.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04) }

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TABLE 1.1 ;

SL No	Test conducted	Test Results	Tests Conforms to IS 2386(Part I to IV)– 1963 (Reaffirmed on 2002) & Requirements as per IS-383-1970 & M.o.R.T.H Specification, V Revision -2013.
1.	Aggregate Impact Value	**22.96%**	Not more than 24.00 %
2.	Combined Flakiness and Elongation index, %	**27.68%**	Not more than 35.0 %
3.	Water absorption, %	**0.42%**	Not more than 2.0 %
4.	Specific gravity	**2.62**	-------
5.	Soundness	**5.86%**	Max. 12 % in Sodium Sulphate

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BC1

Date: 10-12-2020

I.TEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [13th, 12th B, 9th B main 17th, 18th B, 11th B Cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.42 %**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**97.45**	90-100
9.5	**81.90**	70-88
4.75	**65.45**	53-71
2.36	**52.75**	42-58
1.18	**45.30**	34-48
0.600	**31.85**	26-38
0.300	**25.10**	18-28
0.150	**18.60**	12-20
0.075	**7.90**	4-10

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANTS Bangalore

NC/QC/YD/2020-21/P4-BS1

Date: 10-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1368**	900
2	Marshall Flow at 60°C, mm.	**3.54**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BC2

Date: 10-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [13th B, 12th B, 9th B main & 14th B, 12th B, 11th B cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.43%**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**95.25**	90-100
9.5	**81.15**	70-88
4.75	**67.35**	53-71
2.36	**52.80**	42-58
1.18	**43.35**	34-48
0.600	**31.75**	26-38
0.300	**24.65**	18-28
0.150	**18.10**	12-20
0.075	**7.35**	4-10

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BS2 Date: 10-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1352**	900
2	Marshall Flow at 60°C, mm.	**3.46**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BC3 Date: 11-12-2020

LTEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" 13th B, 12th B, 9th B main & 17th, 18th B, 11th B cross]

Ref.: Material testing/PMC/20-21.

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.43%**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**97.25**	90-100
9.5	**83.10**	70-88
4.75	**64.35**	53-71
2.36	**52.80**	42-58
1.18	**44.35**	34-48
0.600	**32.75**	26-38
0.300	**26.65**	18-28
0.150	**17.25**	12-20
0.075	**8.35**	4-10

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BC3 Date: 11-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [" 13th B, 12th B, 7th B main & 17th, 12th B, 11th B cross]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test – **5.43%**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**97.25**	90-100
9.5	**83.10**	70-88
4.75	**64.35**	53-71
2.36	**52.80**	42-58
1.18	**44.35**	34-48
0.600	**32.75**	26-38
0.300	**26.65**	18-28
0.150	**17.25**	12-20
0.075	**8.35**	4-10

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BS3 Date: 11-12-2020

I.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1350**	900
2	Marshall Flow at 60°C, mm.	**3.42**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BC4

Date: 11-12-2020

LTEST REPORT ON BITUMINOUS MIXES :
(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [9th A, 7th A cross 3rd A, 4th A main]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.44%**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**95.45**	90-100
9.5	**81.90**	70-88
4.75	**67.45**	53-71
2.36	**54.75**	42-58
1.18	**45.30**	34-48
0.600	**31.85**	26-38
0.300	**24.10**	18-28
0.150	**18.70**	12-20
0.075	**6.90**	4-10

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT Bangalore

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NC/QC/YD/2020-21/P4-BS4 Date: 11-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [9th A, 7th A cross & 3rd A, 4th A main]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1368**	900
2	Marshall Flow at 60°C, mm.	**3.54**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

Page No. 1/1

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NC/QC/YD/2020-21/P4-BC5 Date: 14-12-2020

LTEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [Bright law college, Heysala ground, Shiradi shrinivas apartment 1st main, cross]

Ref. Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.42%**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**93.25**	90-100
9.5	**82.15**	70-88
4.75	**65.35**	53-71
2.36	**52.80**	42-58
1.18	**45.35**	34-48
0.600	**32.75**	26-38
0.300	**24.65**	18-28
0.150	**18.20**	12-20
0.075	**7.35**	4-10

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT * Bangalore *

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NC/QC/YD/2020-21/P4-BS5

Date: 14-12-2020

1.TEST REPORT ON BITUMINOUS MIXES :

(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1356**	900
2	Marshall Flow at 60°C, mm.	**3.44**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BC6 Date: 14-12-2020

I.TEST REPORT ON BITUMINOUS MIXES :

(BITUMEN EXTRACTION TEST & GRADATION TEST)

Sub: To determine the percentage of bitumen and gradation for BC mix sample.

{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).} [Bright Law college HOYsala ground, Shivadi Eswara apartment cross, 1st main]

Ref.: Material testing/PMC/20-21,

Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.

Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

A. Type of Construction : **Bituminous Concrete**

1. The bitumen content obtained after subjecting the sample for Bitumen Extraction test = **5.44%**

2. **Gradation Test**

TABLE 1.1

Sieve Size, mm	Percent by Weight passing the Sieve from the sample supplied (Obtained Gradation)	Gradation requirement as per Table 500-17 of MORTH Specfications-2013 BC (Grading - 2)
19.0	**100**	100
13.2	**94.25**	90-100
9.5	**83.15**	70-88
4.75	**62.35**	53-71
2.36	**54.80**	42-58
1.18	**41.35**	34-48
0.600	**32.75**	26-38
0.300	**22.65**	18-28
0.150	**17.15**	12-20
0.075	**8.90**	4-10

The result of the materials tested meets the standards and hence can be used for the work.

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NC/QC/YD/2020-21/P4-BS6 Date: 14-12-2020

LTEST REPORT ON BITUMINOUS MIXES :
(STABILITY OF BITUMINOUS MIX)

Sub: To determine the stability of bituminous mix for BC mix sample.
{Project*: Improvements to roads & drains at A sector,B sector,LIG and MIG and surrounding area in ward no 04 Yelahanka New Town Sub division(package-04).}
Ref.: Material testing/PMC/20-21,
Report Required for: Assistant Executive Engineer,
Yelahanka Satellite Town Sub Division,
BBMP, Bangalore.
Name of the Agency/Contractor*: M.S. Venkatesh (MSV Constrution Company).

TEST RESULTS

Table 1: Properties of BC (Gr-2) Mix

Sl. No.	Test Property	*Test results obtained by Marshall method	Requirements of Bituminous Concrete, Grade-2 as per M.o.R.T&H (V Revision)-2013 Specifications
1	Marshall Stability (75 blows) (At 60°C), kgs.	**1358**	900
2	Marshall Flow at 60°C, mm.	**3.44**	2.0 - 4.0

The result of the materials tested meets the standards and hence can be used for the work.

NEWZEN CONSULTANT BANGALORE

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